

**REMARKS**

**Status of Claims:**

Claims 1-5, 7-16, 19-21, and 54-59 were pending in the application; Claims 2-4 are hereby cancelled without prejudice or disclaimer of subject matter contained therein. The Applicants reserve the right to prosecute the subject matter thereof in one or more divisional, continuation, and continuation-in-part application(s). Claims 1, 7-16, 19-21, and 54-56 are now pending. Each pending claim defines an invention that is novel and unobvious over the cited art. Favorable re-consideration of this case is respectfully requested.

**Disclosure Supporting the Instant Amendment:**

Claims 1 and 14 are hereby amended to recite: “a Fourier transform infrared spectroscope optically coupled to the array addressed device” and “wherein an infrared spectroscope signal from the infrared spectroscope is electromodulated by applying potential between the at least two electrodes in at least one of the plurality of cells.” These recitations were taken from cancelled Claims 2-4. In view of the original disclosure, the present amendment does not comprise “new matter.”

**Claim objections**

The outstanding Official Action has objected to claims 1 and 14 due to informalities: the phrase “wherein the plurality of addressable cells are configured to function as a memory cell array” in the amended limitation should be corrected to “wherein the plurality of addressable cells is configured to function as a memory cell array.” Applicant has amended claims 1 and 14 accordingly, and respectfully requests withdrawal of the above-identified objections.

**Claims Rejections Under § 35 U.S.C. 103**

The outstanding Official Action has rejected claims 1-4, 7-12, 19-21, 54, 56, and 57 under 35 U.S.C. § 103 as allegedly being unpatentable over Li (WO 02/031463) in view of

DeNuzzio et al. (WO 2004/001404, hereinafter DeNuzzio), Chazalviel<sup>1</sup>, Yoshida et al. (JP 07-184883, hereinafter Yoshida), and Kuhr et al. (U.S. Patent Publication No. 2003/0082444, hereinafter Kuhr).

The outstanding Official Action has rejected claim 59 under 35 U.S.C. § 103 as allegedly being unpatentable over Li in view of DeNuzzio, Kuhr, and Girault as applied to claim 14, and further in view of Torch (U.S. Patent No. 6,163,281) and Wohlstadter et al. (U.S. Patent No. 6,090,545, hereinafter Wohlstadter).

The outstanding Official Action has rejected claim 13 under 35 U.S.C. § 103 as allegedly being unpatentable over Li, in view of DeNuzzio, Chazalviel, Yoshida, and Kuhr as applied to claims 1 and 10, and further in view of Dai et al. (U.S. Patent No. 6,528,020, hereinafter Dai).

The outstanding Official Action has rejected claims 14-16, 55, and 58 under 35 U.S.C. § 103 as allegedly being unpatentable over Li in view of DeNuzzio, Kuhr, and Girault et al. (U.S. Patent No. 5,512,489, hereinafter Girault).

The Applicants hereby amend Claims 1 and 14 to recite: “a Fourier transform infrared spectroscope optically coupled to the array addressed device” and “wherein an infrared spectroscope signal from the infrared spectroscope is electromodulated by applying potential between the at least two electrodes in at least one of the plurality of cells.”

The Examiner acknowledges that Li, the primary reference, does teach an optical spectroscope coupled to the array device. The Examiner cites Chazalviel as teaching a modulated Fourier transform IR spectroscope coupled to an array device. The applicants hereby amend claims 1 and 14 to recite a modulated Fourier transform IR spectroscope coupled to an array device wherein an infrared spectroscope signal from the infrared spectroscope is electromodulated by applying potential between the at least two electrodes in at least one of the plurality of cells. In contrast to the present invention, Chazalviel does not modulate by applying a potential difference between the at least two electrodes. For Chazalviel “modulation of the

<sup>1</sup> Chazalviel et al., Applied Spectroscopy, 1993, Vol. 47, pp. 1411-1416.

Application No. 10/814,982  
Amendment dated August 24, 2010  
Reply to Final Office Action dated June 7, 2010

Atty. Docket No. 043395-0377973

interfacial double layer is the main source of potential-modulated IR absorption." (Chazalviel, p. 1412, col. 2, last paragraph).

In view of these differences, the Applicants note that the present invention distinguishes over the cited art and respectfully request the Examiner withdraw the rejections as moot.

**CONCLUSION**

In view of the above amendment, applicant believes the pending application is in condition for allowance. The Director is authorized to charge any fees necessary and/or credit any overpayments to Deposit Account No. 03-3975, referencing Docket No. 043395-0377973.

Respectfully submitted,

Dated: August 24, 2010

By: /John A. Evans/  
John A. Evans, Ph.D.  
Registration No.: 44,100  
Attorney for Applicant(s)

Customer No. 00909  
PILLSBURY WINTHROP SHAW PITTMAN LLP  
P.O. Box 10500  
McLean, VA 22102  
Telephone: 703-770-7900  
Facsimile: 703-770-7901